



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

**A LONG LOST GENUS TO THE UNITED STATES—ERPIDIUM
(BRID.) M. C.**

By a strange series of accidents and mishaps a rare moss which was collected by W. S. Sullivant in Georgia sixty years ago, and was described by Austin thirty-two years later, has remained in oblivion ever since 1877 and has only been rediscovered in connection with my studies of West Indian mosses! Owing to its resemblance to *Frullania* or *Lejeunia*, it had been sent to Manchester, England, with Austin's Hepatics which were sold to W. H. Pearson. Subsequently it was returned to the Herbarium of Columbia University and placed among the Hepaticæ, where Dr. Howe rediscovered it. Dr. Evans has supplied me with the following references, and the description is drawn from Austin's specimens.

Erpidium biseriatum (Austin) Austin Bot. Gaz. 2:142, 1877.

Lejeunia biseriata Austin Proc. Acad. Sci. Phila. 21:225, 1869.

Stem slender, 1 cm. long and about 1 mm. wide. Leaves 0.40–0.50 mm. long, unequal at base, with distinct hexagonal or rounded cells at apex, 0.005 x 0.013 mm. in diameter with thick brown walls, basal and central cells longer and narrower, 0.010 x 0.040 mm., the translucent marginal cells not papillose, dorsal cells with from 4–8 minute papillæ. Fruit unknown.

Collected with *Lejeunia Sullivantii* by W. S. Sullivant, near Augusta, Georgia, in 1845.

Dr. Small tells me that the region around Augusta is very hot and moist, with densely wooded river swamps, where mosses and hepatics abound. This would account for the occurrence of this tropical *genus* within our limits, as its nearest relative *E. Cubense* and *E. Domingense* are in Cuba, Santo Domingo, Porto Rico and Jamaica, with another species, *E. diversifolium*, in Mexico. Full descriptions of these will be found in the Bulletin of the Torrey Botanical Club for May.

ELIZABETH G. BRITTON

NEW OR UNRECORDED MOSSES OF NORTH AMERICA.

By J. CARDOT AND I. THÉRIOT.

Translated and condensed from The Botanical Gazette, May, 1904.

Descriptions of new species given in full. See BRYOLOGIST, January and March, 1905.

BARTRAMIA ITHYPHYLLA Brid. var. FRAGILIFOLIA Card. & Thér.

Differs from the type in its rigid, fragile, much broken leaves.

Colorado: Along the Cogwheel Railroad to Pike's Peak, alt. 2100–3000m. (J. M. Holzinger, 1896).

By its brittle and usually broken leaves, this form much resembles *B. breviseta* Lindb., but in the latter the leaf base is hardly glossy and less abruptly contracted to the subula.

WEBERA CHLOROCARPA Card. & Thér.

Rather densely caespitose, covered with soil at the base, fuscous green below, above yellowish. Stems 1–2 cm. long, erect, simple or divided.

Leaves erect-appressed, 2 mm. by 1 mm., ovate-lanceolate, acutely acuminate, a little decurrent at base, margins plane and entire, costa 80μ thick below, short excurrent, basal cells quadrate or short-rectangular, subinflated, $40-60\mu$ by $25-40\mu$, median hexagono-rhomboidal 40 by $18-20\mu$, four to five rows, marginal cells of the upper two-thirds narrow, linear forming a sort of yellowish margin. Seta reddish, pale above, more or less flexuous, 2-2.5 cm. long; capsule 2-2.5 mm. long by 0.75 mm. wide, pendulous or cernuous, ovate-pyriform, narrowed into a neck equalling the sporangium, pale yellow, plicate with age, scarcely constricted under the mouth, walls soft with numerous superficial stomata, operculum convex, obtusely apiculate, annulus broad. Teeth 0.44 mm. high, formed of 20-25 joints, basal membrane very wide extending more than half the length of the teeth, segments widely open along the keel, cilia one or two more or less elongated, granulose. Spores $18-20\mu$ in diameter. Seemingly dioicous (antheridial buds not seen on fruiting plants). Plate XX.

Nevada: Marlette Lake, Washoe Co., on stream bank (C. F. Baker, 1902).

Resembles in habit *W. gracilis* DeNot., but much stronger, with a very different areolation of broad and short cells. The leaf areolation recall that of the genus *Mniobryum* Limpr., but the stomata of the capsule are superficial and the annulus is quite distinct.

WEBERA DEBATI Card. & Thér.

In loose yellowish-green tufts, with the habit of *Philonotis*. Stems 1.5-2.5 cm. high, densely radiculose below, tomentose above, with slender erect innovations. Lower leaves rather remote, erect-spreading, upper leaves closer appressed, about 1.3 mm. long by 0.33 mm. broad, lanceolate, acute, not at all decurrent; margins plane throughout, denticulate nearly to base; costa 40μ thick at base, vanishing below the apex; median cells linear, $140-170\mu$, $28-30\mu$ broad, the lower cells broader and shorter, rectangular or subhexagonal, marginal cells longer, narrowly linear. Other characters unknown. Plate XX.

North America: Alexander Co. (Herb. L. Debat. without name of collector).

This species seems closely connected with *W. annotina* Bruch., from which it is distinguished by the larger size, the habit resembling that of a small *Philonotis*, the tomentose stems and the leaves plane on the margins. *BRYUM PENDULUM* Sch. var. *NEVADENSE* Card. & Thér.

Differs from the type in the more slender capsule, similar to that of the var. *angustatum* Ren., but larger; in the convex-apiculate operculum, which is not at all conic; and finally in the leaves and costa which are green, not red at base.

Nevada: King's Canon, near Carson, along stream (C. F. Baker, 1902). *BRYUM POLYCLADUM* Card. & Thér.

Synocious, in broad dense tufts, fuscous within, bright green above. Stems short, 3-5 mm. high, branches slender, erect, numerous, arising from below the perichætium. Leaves erect-appressed, crowded, the lower short,

1 m. long, 0.5 m. broad, the median and upper leaves a little larger, 1.5 mm. long, 0.5–0.6 mm. broad, not decurrent at base, ovate or ovate-oblong, short acuminate, narrowly decurrent from base to apex, denticulate above, costa strong, reddish, 60–65 μ thick at base, short excurrent in the middle and upper leaves, hardly percurrent in the lower; median and upper cells short-hexagonal, 30–35 μ long, 12 μ broad, with incrassate walls, marginal cells linear in two or three rows, lower cells larger, laxer, rectangular, 35–50 μ long, 12–18 μ broad. Capsule oblong, 4–4.5 mm. long, 1–2 mm. broad, nodding or perdulous, neck abruptly contracted when moist; operculum convex-apiculate. Seta elongated, flexuous, reddish, 4–6 cm. long. Annulus broad. Teeth of peristome narrow, pale, reddish above with 18–22 lamellæ, 0.35–0.4 mm. long, 50 μ broad at base, basal membrane of the inner peristome adherent $\frac{1}{3}$ the height of the teeth, segments linear, gaping along the keel; cilia very short or none. Spores minute, pale, 12 μ in diameter. Plate XXI.

Nevada: Spooner, Douglas Co., in large mats on moist banks (C. F. Baker, 1902).

This moss can be placed near *B. longisetum* Bland., but it is easily distinguished from it by the numerous sterile branches arising from below the perichaetium, the smaller leaves with a shorter acumen, the peristomial teeth, which are narrower and paler, and have more numerous lamellæ, and finally the much smaller spores.

(To be Continued.)

WHAT TO NOTE IN THE MACROSCOPIC STUDY OF LICHENS.

BRUCE FINK.

INTRODUCTORY STATEMENT.

Mrs. Carolyn W. Harris has, in previous volumes of the *BRYOLOGIST*, given amateur lichenists a series of descriptions of the more conspicuous lichen species, which will prove helpful to workers in determinations and in fixing the main features of gross morphology. It is the purpose of the present paper to state the principal features of gross morphology, including not only the foliose and fruticose lichens, but also extending the statement to the most inconspicuous crustose species as well. In so doing, we shall confine attention to such elements of structure as may readily be seen with the unaided eye or with an ordinary hand-lens.

THE THALLUS.

In this study, it is but natural to begin with the vegetative tract of the lichen—the thallus. The thallus may be an erect structure, rising from the substratum; a pendulous one, hanging downward from it; a conspicuous or inconspicuous flat one, closely or loosely attached to the substratum; or an inconspicuous one, largely or even wholly imbedded in the substratum. Erect and pendulous forms are commonly called fruticose thalli, and the flat or horizontal ones may be either foliose, or crustose; foliose when somewhat leaf-like, and crustose when a closely attached crust resting on or within the substratum.